

CLAIMS:

1. A storage device (2) for storing data pieces and comprising:
 - an input (27) for receiving first data pieces having a first data format;
 - a transcoder (22) for transcoding a first data piece into a second data piece having a second data format different from the first data format;
 - a storage medium (23) for storing a set of first data pieces and a subset of second data pieces; and
 - a processor (20) for searching for a predefined second data piece stored in the storage medium (23) and for, in response to a positive search result, supplying the predefined second data piece to a reproduction device (3) and for, in response to a negative search result, controlling the transcoder (22) for transcoding a corresponding first data piece into the predefined second data piece and supplying the predefined second data piece to the reproduction device (3).
2. A storage device (2) as claimed in claim 1, wherein the processor (20) is arranged to delete second data pieces stored in the storage medium in dependence of data piece priorities.
3. A storage device (2) as claimed in claim 1, wherein the data pieces are pieces of music, with the first data format corresponding with a first audio standard and with the second data format corresponding with a second audio standard, which first audio standard requires less storage capacity than the second audio standard.
4. A storage device (2) as claimed in claim 1, wherein the reproduction device (3) is coupled to the storage device (2) via a wireless channel (4) requiring data pieces to have the second data format.
5. A storage device (2) as claimed in claim 1, wherein the storage device (2) comprises an audio recorder and the reproduction device (3) comprises one or more loudspeakers.

6. A system (1) comprising a reproduction device (3) and a storage device (2) for storing data pieces and comprising:

- an input (27) for receiving first data pieces having a first data format;
- 5 - a transcoder (22) for transcoding a first data piece into a second data piece having a second data format different from the first data format;
- a storage medium (23) for storing a set of first data pieces and a subset of second data pieces; and
- a processor (20) for searching for a predefined second data piece stored in the storage
- 10 medium (23) and for, in response to a positive search result, supplying the predefined second data piece to the reproduction device (3) and for, in response to a negative search result, controlling the transcoder (22) for transcoding a corresponding first data piece into the predefined second data piece and supplying the predefined second data piece to the reproduction device (3).

15

7. A processor (20) for use in a storage device for storing data pieces, which storage device comprises:

- an input (27) for receiving first data pieces having a first data format;
- a transcoder (22) for transcoding a first data piece into a second data piece having a second data format different from the first data format;
- 20 - a storage medium (23) for storing a set of first data pieces and a subset of second data pieces; and
- the processor (20) for searching for a predefined second data piece stored in the storage medium (23) and for, in response to a positive search result, supplying the predefined second data piece to a reproduction device (3) and for, in response to a negative search result, controlling the transcoder (22) for transcoding a corresponding first data piece into the predefined second data piece and supplying the predefined second data piece to the reproduction device (3).

25 8. A method for supplying data pieces to a reproduction device (3) and comprising the steps of:

- receiving first data pieces having a first data format;
- transcoding a first data piece into a second data piece having a second data format different from the first data format;

- storing a set of first data pieces and a subset of second data pieces in a storage medium (23); and
- searching the storage medium (23) for a predefined second data piece for, in response to a positive search result, supplying the predefined second data piece to the reproduction device (3) and for, in response to a negative search result, transcoding a corresponding first data piece into the predefined second data piece and supplying the predefined second data piece to the reproduction device (3).

5

9. A processor program product for supplying data pieces to a reproduction device (3) and comprising the functions of:

- receiving first data pieces having a first data format;
- transcoding a first data piece into a second data piece having a second data format different from the first data format;
- storing a set of first data pieces and a subset of second data pieces in a storage medium (23); and
- searching the storage medium (23) for a predefined second data piece for, in response to a positive search result, supplying the predefined second data piece to the reproduction device (3) and for, in response to a negative search result, transcoding a corresponding first data piece into the predefined second data piece and supplying the predefined second data piece to the reproduction device (3).

10

15

20